

August 24, 2016

VIA IBFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Letter
File No. SAT-LOA-20151123-00078

Dear Ms. Dortch:

Spire Global, Inc. (“Spire”) hereby replies to the letters submitted by ORBCOMM License Corp. (“ORBCOMM”) on August 9, 2016 and August 23, 2016 in the above-referenced application proceeding.¹ With respect to the upcoming SHERPA mission, Spire should be permitted to launch and operate the eight LEMUR-2 satellites manifested on the SHERPA spacecraft, provided the International Bureau (“Bureau”) conditions the grant of authorization on the parties’ exchange of GPS-derived location information for the relevant satellites.² Spire is willing to abide by any such general license condition the Commission deems necessary and in the public interest and commits to working with ORBCOMM in good faith on a specific process for that information exchange, after the grant of the Spire application.

The Bureau should reject ORBCOMM’s request that the parties work “off the record” to finalize the GPS-derived information exchange as a prerequisite to the grant of the Spire application.³ Allowing ORBCOMM to run the clock out on the Formosat-5 mission should not be an option. While

¹ Letter from Walter H. Sonnenfeldt, Vice President Regulatory Affairs, ORBCOMM, Inc. to Marlene H. Dortch, Secretary, FCC, File Nos. SAT-LOA-20151123-00078; SAT-STA-20150821-00060; SAT-MOD-20150802-00053 (filed Aug. 9, 2016) (“ORBCOMM August 9th Letter”); Letter from Walter H. Sonnenfeldt, Vice President Regulatory Affairs, ORBCOMM, Inc. to Marlene H. Dortch, Secretary, FCC, File Nos. SAT-LOA-20151123-00078; SAT-STA-20150821-00060; SAT-MOD-20150802-00053 (filed Aug. 23, 2016) (“ORBCOMM August 23rd Letter”).

² See ORBCOMM August 9th Letter at 1 (“[I]n light of its preliminary analysis of the additional information provided by Spire and Planet Labs, and with appropriate license conditions, the Commission may be able to grant Spire’s request to include eight Lemur-2 satellites on the proposed SHERPA secondary satellite payload deployment mission.”); *id.* at 5.

³ See *id.* at 4-5; see also ORBCOMM August 23rd Letter at 1. Spire appreciates that in many cases informal coordination and cooperation is the best process to drive an efficient regulatory outcome, but believes that at this point continuing to work off the record would be more prejudicial than efficient. Indeed, ORBCOMM’s suggestion that it would be “more efficient” here flies in the face of the more than six months of coordination efforts already made by Spire and Planet Labs Inc. (“Planet”). See ORBCOMM August 9th Letter at 4.

ORBCOMM did reach out to counsel for Spire and Planet over a week ago, it still has not produced any edits to the last version of the two-page draft agreement, which was circulated to ORBCOMM almost three months ago. Thus, Spire has no reason to believe that ORBCOMM will be any easier to deal with now than earlier and requests that the Bureau take action immediately in light of the fast-approaching, mid-September payload integration deadline.

With respect to future launches, Spire objects to ORBCOMM's new and troubling suggestion that the Bureau should (i) continue to grant in part and defer Spire's application on a launch-by-launch basis⁴ and (ii) effectively refrain from ruling on Spire's application until after completing a rulemaking of general applicability addressing the "small satellite revolution."⁵ The Bureau has broad authority to adopt license conditions to address the alleged concerns that ORBCOMM has raised in this application proceeding, consistent with long-standing FCC practice.⁶ For example, if the Commission feels it is necessary, Spire would be willing to submit to the FCC, as a license condition, any Orbital Debris Assessment Report ("ODAR") for an elliptical orbit deployment exceeding a 650 km orbital altitude, on a launch-by-launch basis, to show that such deployment meets established orbital debris standards.⁷

ORBCOMM cites no precedent for its extraordinary suggestion to hold the Spire application in limbo indefinitely pending the resolution of a rulemaking proceeding that is not even pending and may not be initiated.⁸ Moreover, such a policy could result in severe negative ramifications not only to Spire but also to the still nascent and fragile U.S. small satellite ("smallsat") industry by effectively barring the ability of smallsat companies to obtain a full satellite system license in the United States.⁹

⁴ ORBCOMM August 9th Letter at 5.

⁵ *Id.* at 3; *see also id.* at 5 (objecting to authorization for "additional satellites without knowing the particulars of the number of satellites, launch mission plan, or targeted operational orbits").

⁶ *See, e.g., ViaSat. Inc., Application for Blanket Authority for Operation of Up to 1,000 Technically Identical Ku-Band Aircraft Earth Stations in the United States and Over Territorial Waters*, Order and Authorization, 22 FCC Rcd 19964 (2007) (granting blanket authority for domestic operation of transmit/receive earth stations aboard commercial aircraft subject to any additional requirements adopted by the Commission in pending rulemaking proceeding).

⁷ Assuming that the ODAR meets such standards, the ODAR should not be subject to further comments or opposition from others. As part of the application, Spire submitted an ODAR showing that it meets orbital dwell times set forth in the NASA DAS standard, *i.e.*, less than 25 years, for a circular 650 km orbital deployment and for the elliptical orbit at issue here. Spire's maximum orbit is based on 25 years from deployment, not end of mission life. Spire's satellites contain a nylon strip that will cause its solar panels to deploy even if its satellites are dead-on-arrival. Thus, any orbit Spire selects under its license maximum of 650 km will have a dwell time that is as good or better than the worst-case scenario already submitted with Spire's application and under all circumstances Spire would meet the 25-year NASA de-orbit requirement.

⁸ *See* ORBCOMM August 9th Letter at 3.

⁹ While Spire supports an informed rulemaking on smallsat related issues, this process should take place at such time as the Commission deems appropriate and only after a full and fair chance for all users of space to weigh in. Spire is not asking the Commission to make any decision today that must be settled through the rulemaking process or that is contrary to existing precedent. Rather, Spire is asking that the Commission rule on its application in a way that allows the dynamic and nascent smallsat industry that Spire represents to continue to move forward.

As Spire has explained, there is no basis for ORBCOMM's position that the Commission should not grant applications to operate satellites in low earth orbit until the applicant demonstrates to the incumbent operator's "reasonable satisfaction that there is no unacceptable risk of collision."¹⁰ Indeed, such a policy would unfairly raise the bar for new operators far above where it has been set for ORBCOMM.¹¹

For the reasons stated above and in prior filings, Spire requests that the Bureau deny ORBCOMM's Petition and grant the Spire application.¹²

Respectfully submitted,

/s/Trey Hanbury

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cc: Jonathan Rosenblatt, Spire Global, Inc.

¹⁰ See Letter from Trey Hanbury, Counsel to Spire Global, Inc. to Marlene H. Dortch, Secretary, FCC, File No. SAT-LOA-20151123-00078, at 8 (filed July 26, 2016).

¹¹ See *id.* at 6-7 (discussing ORBCOMM's post-mission plan of disposing of its satellites at 615 km, where it will present a collision risk for 20-25 years to many other low earth orbit satellite operators).

¹² Spire is in the process of coordinating the use of its "Phase II" frequencies, as identified in the application, and understands that any grant of the Spire application would pertain only to the use of the "Phase I" frequencies.

CERTIFICATE OF SERVICE

I, Arielle Brown, hereby certify that on August 24, 2016, a true and correct copy of this *ex parte* letter was sent by United States mail, first class postage prepaid, to the following:

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/s/ Arielle Brown

Arielle Brown